TIZER LAKE
TRACT H

TIZER LAKE - TRACT H

Introduction

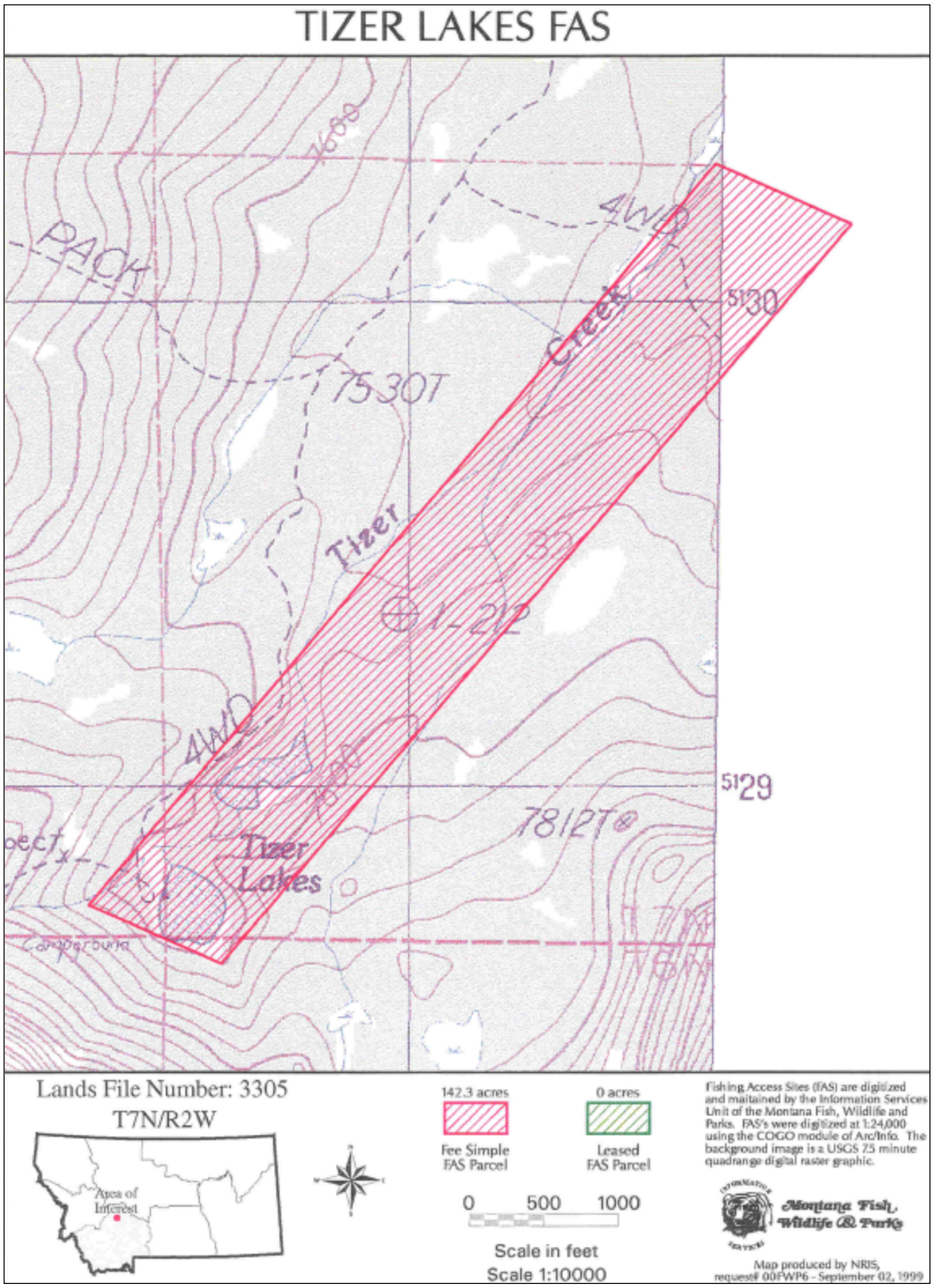
FWP acquired this property in 1960 using 75% Federal Aid in Sport Fish Restoration (Wallop-Breaux) funding and 25% FWP License money. Tizer Lake tract is on the eastern slope of the Elkhorn Mountains and provides opportunities for fishing, camping, and hunting. The tract is surrounded by Helena National Forest lands. The Elkhorn Mountains are managed as a Wildlife Management Unit and nearly two-thirds of the Unit is closed yearlong to motorized vehicles. The Tizer Lake tract is accessible year-round on a designated open route, though the last six miles of road to Tizer Lakes is very rough and many people access the site by foot, four-wheeler, motorcycle, or horse. Off road snowmobile use is allowed from 12/2-5/15.

Few improvements have been made to the site, including signs to identify the site. The immediate lake area has been fenced to reduce erosion and environmental impacts. Camping is allowed at the site, though sites are informal and undesignated. It is a very remote site for FWP personnel to manage. The FS, however, owns lands surrounding the Tizer Lakes tract that also require supervision; therefore, this agency can have more of a presence at the site to protect the resources.

Visitation estimates are not decisive at this remote tract. Recreation Planner, Dave Payne, believes a practical estimate is close to 2000 visitors annually, due to the difficult access. Helena National Forest Acting Biologist, Jodie Canfield, estimates that 10-20 different parties may be seen using the Tizer Lakes area on a typical summer weekend. Very little use occurs during the weekdays. Based on her observations, visitors engage in picnicking, hiking, and camping, and approximately 80% of the visitors will fish during their visit. The FWP Statewide Angling Pressure Estimates for 1997 indicate 69 anglers used the site (listed under Lower Tizer Lake), however the margin of error in this statistic is + or – 69. This is considered to be 100% resident use. The site is ranked 289th in the region for angler use.

It is proposed that this property be transferred to the FS to be absorbed into the Elkhorn Wildlife Management Area and managed contiguously with the surrounding forest. FWP will continue to take an active role in the fisheries and wildlife management of the area as is their state-wide mandate.

MAP 11. Tizer Lakes FAS



Property Description

The Tizer Lake tract is accessible from Jefferson City about 12 miles east on Prickly Pear Creek road in the Helena National Forest.

Township 7 North, Range 2 West
Sections 31 and 32, Lot #38
Township 6 North, Range 2 West
Section 5
Mining Survey 2828, Woodland Park Placer
Jefferson County
Total acreage = 142.29 acres

This long rectangular parcel corresponds to a placer claim that straddles Tizer Creek. The tract contains two lakes known as Upper and Lower Tizer Lakes in a valley sculpted by glaciers. These lakes have been dammed at the outlets to raise lake levels, and without the dam, the lower lake would likely be only a wet meadow or slough. Upper Tizer Lake flows into Lower Tizer Lake, which exits the lake as Tizer Creek and continues through the property to the northeast and eventually empties into the Missouri River.

Approximately ¾ of the parcel is wetlands or riparian zones, including the lakes (based on Wetlands/Riparian areas Resource Report by EA Engineering, 1992). The remaining tract is generally used for recreation – meadows or woodlands, and steep rocky slopes and cliffs. A few small prospect pits remain and the two borrow pits excavated when building the dams. Very little else remains of the past mining days.

Land adjacent to the creek bottom is gently sloping and densely timbered with lodge pole pine and Douglas fir as parts of the subalpine forest and subalpine, sedge meadow vegetation communities. Towards the north end of the tract is a large wet meadow. Tizer Creek is lined with Dwarf willow and sedge species in the riparian areas. Wetlands occur at the southwest portion of the tract.

The above information is based on specialist reports prepared for the FS by EA Engineering, Science and Technology, Redmond, Washington, and subcontractor Historical Research Associates, Inc., Missoula, Montana, for a land exchange proposal in 1992.

ENVIRONMENTAL REVIEW

Physical Environment

Land Resources

(The following **minerals** information is from the Mineral Potential Report prepared for the Alberton Gorge Land Exchange and can be obtained from the U.S. Forest Service, Region 1 office in Missoula.)

The mineral estate on the Tizer Lake tract is owned by FWP and will be transferred to the FS if the Alberton Gorge Land Exchange is completed.

Geology, Mineralization and Mineral Activity

The Tizer Lake tract is located within the Elkhorn Mountains, part of an uplifted, fault-bounded block, that is underlain by granitic rocks of the Boulder Batholith and overlain in a large portion of the range by late Cretaceous volcanic rocks of the Elkhorn Mountains Volcanics group. The Tizer Lake tract is underlain by tuff, breccia and flows of andesitic composition of the Elkhorn Mountains Volcanics. Thin glacial deposits cover the volcanics on almost the entire parcel (U.S. Geological Survey, 1978).

The lands of the Tizer Lake tract are a patented placer mining claim (Woodland Park Placer, patented in 1889) that straddles Tizer Creek. There are several mines within the vicinity of the parcel and the parcel is within the Tizer-Wilson mining district. Mining occurred in the Tizer-Wilson mining district as early as 1858 when gold placers along Tizer and Wilson creek were worked. There is no recorded production records, but an estimated 2530 ounces of gold has been mined. Recorded production came from hard rock mines as early as 1906. The main period of activity in the district appears to be the 1890's and the 1930's (U.S. Geological Survey, 1978). In 1960, the tract was conveyed to the State of Montana and no mineral activity has occurred since then (Mason, 2000). During a field reconnaissance in 1998, an area (less than 1/10 acre) of hand type placer workings was identified along the northeastern portion of the tract. These workings appeared to be at least 40 years old. An earthen dam is also constructed on the parcel, which allows for main Tizer Lake to hold more water than it would naturally.

Mineral Occurrence and Development Potential

The geology of the Tizer Lake parcel is unfavorable for the occurrence or development of leasable minerals and has been rated as unfavorable for the existence of economically recoverable hydrocarbons (Tysdal et. al, 1996). Thus, development for leasable minerals is highly unlikely. The tract is identified as permissive for the occurrence of porphyry copper type mineral deposits and placer gold deposits (Tysdal et. al, 1996). Although permissive for the occurrence of a copper porphyry, the existence of glacial overburden, poor road access, management restrictions due to the designation of the Elkhorn Mountains as a Wildlife Management Unit, and a depressed mineral industry in Montana result in a highly unlikely development scenario for this tract. The parcel is permissive for placer gold deposits, however, the lack of activity in the past 40 years, poor access and management designation make this parcel unlikely for future development activity.

Helena NF Geologist Beth Ihle indicated in the FS hazardous materials worksheet that there are no signs of hazardous materials on the tract or indications of contamination.

Dave Payne, Recreation Planner on the Helena NF, recommends that the FS would implement some minor actions to limit motorized impacts along the lakeshore. Possible actions that would achieve this goal could include: signing, fencing, vegetative rehabilitation, and/or designated parking areas. Any actions would be reviewed for environmental impacts as required, prior to construction.

Helena National Forest has no plans to develop this tract beyond what is mentioned above for resource protection. The FS does not intend to improve roads through the area (Jodie Canfield, personal communication with Sue Dalbey, August 25, 1999) or other goals, which would cause soil instability or changes in geologic substructure. No impacts would occur to unique geologic or physical features of the area. No changes are anticipated that would result in further soil disruption, displacement, erosion, compaction or over-covering, which could reduce productivity or fertility. Changes are not likely to occur in the siltation, deposition or erosion patterns that could modify the channel of Tizer Creek or bed and shore of Tizer Lakes. The public would not encounter any new risk of exposure to earthquakes, landslides, or ground failures.

Jodie Canfield, Acting Helena National Forest Biologist, stated to Sue Dalbey that the area is managed primarily for non-motorized recreation with an emphasis on wildlife. This management would remain if FS obtained ownership of the Tizer Lakes tract. The main road accessing the property is recognized as a motorized trail and no improvements are anticipated other than maintenance such as water bars to reduce erosion.

A neighboring land owner, George DeMers, has requested permission to cross the northeast end of the property to attain access to private property approximately ½ mile southeast of the tract. A road does exist across the Tizer Lakes tract, but Mr. DeMers may want to upgrade the creek crossing with a culvert or bridge. This would be a private road, not for public use. The road is gated on FS lands. FWP has suggested that a temporary use permit be considered until after the proposed land exchange is complete. Impacts to the soils and geologic substructure, erosion, siltation, stream channel, etc would be addressed in a separate evaluation, whether FWP or FS owns the parcel.

Air

Use of the Tizer Lake property will not likely change after transfer to FS. Air pollutants and ambient air quality should not increase as a result of the change in ownership. Objectionable odors, changes in air moisture, temperature patterns, local or regional climate are not anticipated. No actions are foreseen that would conflict with federal or state air quality regulations.

Water and Flood Plains

The FS has not revealed any future actions for the Tizer Lake tract which would result in negative impacts to surface water and ground water quality or quantities. It is anticipated that management of the site will remain unobtrusive; no alterations are expected to the water temperature, dissolved oxygen, or turbidity. Amount of surface water, drainage patterns and rates of surface runoff and the magnitude of flood waters are expected to remain as they have historically. Risks for contamination of surface water and groundwater should remain the same.

The change of ownership should not affect other water users. Two water rights owned by FWP will be transferred to the FS (#41I-W-190865-00 and #41I-W-190866-00). No discharges are predicted that would affect federal or state water quality regulations.

No sources are known to impact the water quality, though no water quality monitoring stations are within the tract. (*Watershed/Floodplains Resource Report*, EA Engineering, Science, and Technology, November, 1992.)

The DNRC has not identified designated flood hazards or 100 year **flood plains** on the Tizer Lake tract, according to Karl Christians, DNRC, Flood Plain Management Section Supervisor (Federal Insurance Administration, Flood Hazard Boundary Map review with Sue Dalbey, June 13, 2000). Bo Stuart, Helena National Forest Hydrologist confirms this analysis in his Flood Plain & Wetland Evaluation, January 10, 2001. He reports that this tract lies in a glaciated cirque basin and does not include typical geomorphic flood plains. Stuart's evaluation can be viewed at the FS Northern Region Office, Missoula.

Vegetation, Wetlands, Prime & Unique Farmlands

The dominant vegetative communities in the Tizer Lakes tract are subalpine sedge meadow and subalpine forest. The area immediately surrounding the two lakes near the southwest portion of the tract supports an alpine wet meadow plant community. Species in the wetland meadow include labrador tea (*Ledum groenlandicum*), and other sedge species. Dwarf willow (*Salix wolfii*) and sedge species characterize the riparian areas along Big Tizer Creek. *Carex* species dominate the riparian areas around the lakes and adjacent to the willow-dominated riparian areas. Distant from the lakes and creek, the vegetation is mostly subalpine fir (*Abies lasiocarpa*) and lodgepole pine forest with grouse whortleberry (*Vaccinium scoparium*) dominating the understory.

Sharon Scott, presale forester on the Helena National Forest, provided the following **timber** volume estimates (November 18, 1999) after reviewing aerial photos and timber stand inventory data, and personal communications with Helena district employees. The nearest stand exam data was collected in 1988 within ½ mile of the parcel. Timber types slope and aspect were similar to the Tizer Lakes parcel and consisted of mainly lodgepole pine with intermixed pockets of spruce. These sawlog-sized trees average 9 inches diameter a breast height and 55 feet tall, defect averages between 30-35% due to elevation, wind and snow. Small sawlog/pole trees average 6-7 inches diameter at breast height and 40 feet tall, defect averages between 30-35% for the same reasons. These timbered stands are pure lodgepole pine.

Scott estimated these acreages using a dot grid:

16 acres sawlog sized lodgepole pine @ 8,000 board feet per acre
88 acres small sawlog/poles sized lodgepole pine @ 3,000 board feet per acre

Total timber volume estimate: 392 thousand board feet (within +/- 40% confidence error).

Activities are not anticipated that would affect the diversity, productivity or abundance of a plant species or plant community. No agricultural land exists in this tract and no prime or unique farmland will be affected. Noxious weeds are not actively controlled by FWP on this remote tract. The low numbers of vehicles accessing this parcel helps to limit the spread of noxious weeds.

The federally listed (threatened) plants and their critical habitat will not be affected by this project. Water Howellia (*Howellia aquatilis*) is specifically found west of the Continental Divide. Ute Ladies'-tresses (*Spiranthes diluvialis*) is in river meander wetlands in Jefferson County, but the Montana Natural Heritage Program records do not show this species on the Tizer Lakes tract. Spalding's Catchfly (*Silene spaldingii*) is under threatened status; however, this species is found in the Tobacco Valley and the Upper Flathead River and Fisher River drainages. The US Fish and Wildlife Service has also identified the slender moonwort (*Bortrychium lineare*) as a Candidate species, however, it has not been found in Jefferson County. It is found in meadows in conifer forests within Glacier and Lake Counties, far northeast of the Tizer Lakes tract (US Department of the Interior, Fish and Wildlife Service, Threatened, Endangered and Candidate Species in Montana, Endangered Species Act. December 2002). These species have not been recorded on the Tizer Lake tract and will not be impacted by the proposed exchange.

Bo Stuart, Helena National Forest Hydrologist states that the Tizer Lake tract contains 9 acres of **wetlands**. His evaluation digitized actual wetlands from aerial photos using a Planix electronic planimeter. Stuart's Flood Plain & Wetland Evaluation, January 10, 2001 can be reviewed at the FS Northern Region Office, Missoula. *Map 12*, below, shows the approximate wetlands areas provided by EA Engineering, Science, and Technology, November, 1992.

FS has not revealed plans that would significantly impact the wetlands and riparian areas identified above. Jodie Canfield stated that volunteers erected a jack-leg fence around the lake to discourage travel in fragile wetlands by motorized vehicles.

Helena National Forest Soil Scientist Sue Farley reviewed the Tizer Lake location with Sue Dalbey (July 25, 2000) and confirmed that there are no **prime and unique farmlands** in this tract. Farley consulted maps and soil identifications listed in the unpublished report *Soil Surveys of the Helena National Forest* (USDA Forest Service, October, 1989). Prime and unique farmlands will not be impacted on the Park Lake tract.

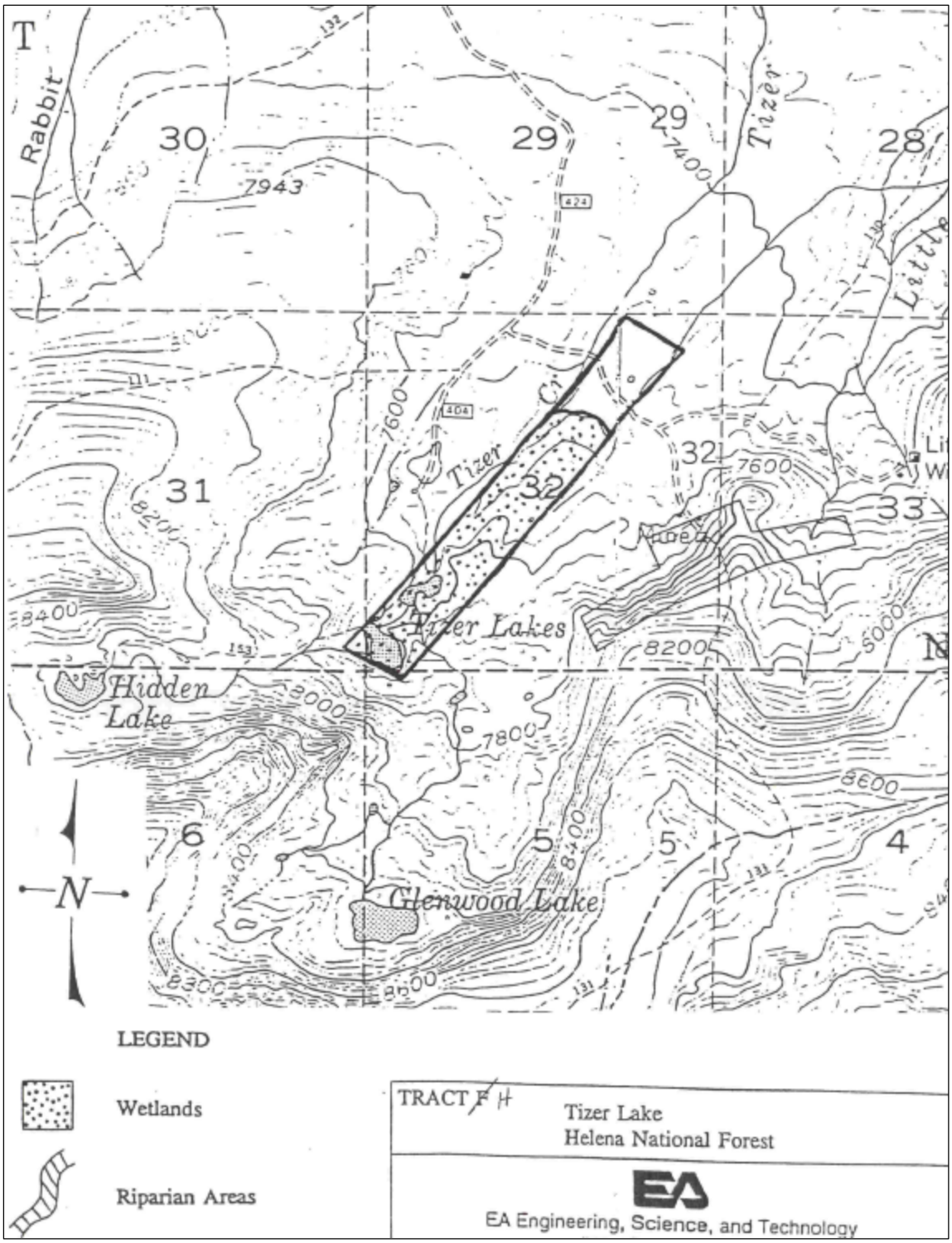
Fish & Wildlife

Transfer of ownership to the FS will not likely affect critical habitat or the diversity and abundance of fish, wildlife and non-game species in the area.

A 1952 evaluation of Tizer Lakes by FWP Fisheries Biologist C. Bishop indicates that Eastern brook trout under 7 inches long were easily caught, and reports show some larger fish over 8 inches. Three inlets provide adequate spawning sites. This area was popular in the early 50's for high lake fishing and at that time, Mr. Bishop hoped to have the road added to the FS system, which would further add to the angler use.

FWP Fisheries Biologist based in Townsend, MT, Ron Spoon, states that Tizer Lake and the creeks currently contain a high density of Eastern brook trout. Access to the lakes and angler opportunities will not change with the proposed change in ownership (personal communication with Sue Dalbey, august 10, 1999).

MAP 12. Tizer Lake Wetland Areas (approximate boundaries)



FWP has released an Environmental Assessment in Fall 1999, outlining the future introduction of westslope cutthroat trout to the Elkhorn Mountains. Mr. Spoon indicates that this is an attempt to return the species to its historic range. Tizer Lakes and Tizer Creeks are included in the plan, which calls for the use of the chemical antimycin and physical stream barriers to limit competition from other fish species such as rainbow and brook trout. The westslope cutthroat trout has been proposed for listing as a threatened species under the Endangered Species Act. The State of Montana is trying to restore cutthroat populations as a proactive way to prevent the listing.

Mr. Spoon also stated that other fish species that are listed would not be affected by the proposed land exchange. Bull trout and white sturgeon do not inhabit waters east of the Continental Divide. The pallid sturgeon and sturgeon chub do not inhabit the Tizer Creek drainage. The sturgeon chub and sicklefin chub are Candidates for Listing under the Endangered Species Act, but are found in the Yellowstone River in eastern Montana. The arctic grayling is found in the Big Hole River. This project will not affect these species.

The Elkhorn Mountains are managed cooperatively by the FS, BLM and FWP as a Wildlife Management Unit with conservative restrictions for travel and hunting, with primary focus on elk habitat. These practices will continue if the proposed land exchange is completed. Human activity and densities are not expected to increase in the area, which will help limit stress to wildlife populations.

FWP Wildlife Biologist Tom Carlson informed Sue Dalbey (personal communication, August 18, 1999) that the area is primarily summer range for elk. Mule deer use the area on a limited basis, and black bears, mountain lions and moose will occasionally use the area. Mountain goats inhabit the adjacent peaks. He has encouraged the FS not to improve roads into the site to protect wildlife habitat and provide a more back-country recreational experience.

Jodie Canfield, Biologist for the FS, indicated similar management preferences by the FS and emphasizes that the area has snow from October until late June, thus limiting recreational use to some degree (personal communication with Sue Dalbey, August 25, 1999).

The following animals are federally listed under the Endangered Species Act (US Department of the Interior, Fish and Wildlife Service, Threatened, Endangered and Candidate Species in Montana, Endangered Species Act. December 2002.) and were considered in this environmental assessment. The tract may not hold habitat for some species, and therefore will not be specifically discussed.

Endangered - black-footed ferret, gray wolf, whooping crane, least tern, pallid sturgeon, white sturgeon (Kootenai River population);
Threatened - grizzly bear, bald eagle, piping plover, bull trout (Columbia River basin and St. Mary-Belly River populations), Canada lynx (contiguous U.S. population);
Proposed Threatened - mountain plover;
Candidates for listing as threatened or endangered - Arctic grayling (fluvial population), warm spring zaitzevian riffle beetle, black-tailed prairie dog, yellow-billed cuckoo (western population);
Proposed Critical Habitat – bull trout (Columbia River basin and St. Mary-Belly River populations: streams, lakes and reservoirs in the Clark Fork, Flathead and Kootenai river basins).

EA Engineering, Science and Technology prepared the *Threatened/Endangered Species Resource Report* in November 1992 for the FS, which revealed the following occurrences of threatened or endangered species on the Tizer tract. The site has habitat that could support the endangered gray wolf, however no sightings have been recorded on the site. The USFWS indicates that the endangered peregrine falcon and bald eagle have the potential to use this area because the tract is within their range during spring and fall migration. A peregrine falcon hack box is also located near the land tract. Grizzly bears (threatened) have the potential to use the area due to the available habitat, but there is no documentation indicating their current use. Golden eagles, which are not listed, are known to be in the vicinity of Tizer Lake.

A search for threatened and endangered species by the Montana Natural Heritage Program (Natural Resource Information System) identified the presence of the fringed myotis (*myotis thysanodes*) over 5 miles to the south west. No other species of special concern were identified.

Biologists for both FWP and the FS stated that they foresee no impacts to the Tizer Lakes area wildlife if the proposed land exchange is implemented.

Human Environment

Noise & Electrical Effects

Noise levels are not expected to increase with the completion of the land exchange. No known changes to electrostatic or electromagnetic conditions are predicted. The remote locale of this tract should not affect radio or television reception.

Land Use

The productivity and profitability of the Tizer Lakes tract should not be affected if ownership transfers to FS. The transfer corresponds with current natural area and wildlife conservation designations in the Elkhorn Mountains. Current ownership by FWP poses an inconsistency of a small portion of state land in the middle of a large FS area. Existing land use of the tract is consistent with surrounding FS lands. This parcel is remote and the proposed action will have little affect on residences.

Risk & Health Hazards

Limited visitation and human use of the property presents little risk of explosion or release of hazardous substances in the event of an accident. This property would be absorbed into the FS management plans as part of the Elkhorn Wildlife Management Area and added to any existing emergency response plan they have in place, including wild fire responses.

Bethany A. Ihle, Geologist for the Helena NF, has visited this tract several times between 1995 and 1998. She completed a **hazardous materials** report, which records the existence of sluice-type placer workings, including washed rock piles. A dam on the upper lake and excavated borrow area are also present. No other indications of potential hazardous alterations to the tract were apparent.

Community Impact

The human population in the area is not expected to change significantly unless improvements to the access road would be made, which are not anticipated under current management plans. The remote character of this tract will not affect the social structure of a community, the industrial or commercial activity in the area. The FS currently has staff that manages the region, and this added encumbrance is not expected to significantly increase their personnel levels. The public will retain ownership of the property, and therefore retain access to the site, thus patterns of human movement to, from and within the site are not expected to change.

Taxes

FWP paid approximately $416 to Jefferson County in lieu of 1998 taxes for the Tizer Lake FAS. It is estimated that the FS would pay an estimated $502 to Jefferson County based on 1999 figures. This is a combined figure of PILT funds (estimated at $421) and payment from the 25% Fund (estimated at $81). Jefferson County could see an increase in revenue of eighty-six dollars.

Public Services, Utilities

Currently, the FWP provides little to no services. The proposed action would result in additional recreation costs to the FS at the Tizer Lake tract. The Helena National Forest will be responsible to provide routine maintenance at several popular dispersed recreation sites adjacent to the lakes (written communication from Allen Christophersen to Sue Dalbey dated March 10, 2003).

The Tizer Lake tract contains approximately 0.5 miles of extremely rough **road** along the western boundary, which will be transferred to the U.S.

No revenue is collected from this site. FWP maintenance costs are little to none. The undisturbed nature of this site will likely be continued under FS ownership. A fence may be erected to limit vehicular travel in wetland areas. Initial construction costs and maintenance costs would be borne by the FS.

Aesthetics & Recreation

Transfer of this property will preserve the scenic vistas and aesthetically desirable sites for the public. No change to the aesthetic character of this portion of the Elkhorn Mountains is anticipated.

The Tizer Lakes tract is not in a designated wilderness area, but as discussed above, this is part of a Wildlife Management Unit and has vehicle travel restrictions.

Cultural & Historical Resources

The following information is cited from the Cultural Resources Inventory Report by Historical Research Associates, Inc. for EA Northwest contracted by the FS, dated September 1992.

The Woodland Park Placer was not patented until 1889, nearly fifteen years after the initial discoveries of gold and silver in the Elkhorn Historic Mining District, directly adjacent to the south boundary of the Tizer Lakes tract. Byron F. Wood filed the original placer claim. The HRA field crew located several historical mining-related structures during the inventory of this parcel. These are believed to be associated with the resources included in a previously recorded site located immediately outside the southwest corner of this parcel. Other historic resources found within the property boundaries include: a log building, a collapsed adit and a can dump, dams, associated borrow pits at the outlets of both lakes, a ditch that diverts water from Tizer Creek below Lower Tizer Lake, several prospect excavations and an area of placer washed rock piles.

HRA recommended that this property be considered ineligible for listing in the National Register of Historic Places as an individual entity, but may be considered a resource that would contribute to the eligibility of the already established Elkhorn Mining District.

The FS is mandated to take into account the effects of any undertaking on the property included in or eligible for inclusion on the National Register of Historic Places.

The properties being transferred from FWP to the FS will be given cultural consideration pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (NHPA 16 U.S.C. 470 (f)) as federal property.

Evaluation of Mitigation or other Control Measures

If a portion of the overall Alberton Gorge Land Exchange fails, this proposal to transfer Tizer Lakes FAS to the FS will likely fail as well. US Fish and Wildlife Service approval of the equal transfer of fishing access values between what is being lost at Tizer Lakes and what is gained in the Alberton Gorge River Corridor is a critical step in the whole exchange.

The land transfer of Tizer Lake FAS is not expected to conflict with local, state or federal regulations. Substantial debate is not expected about the nature of the impacts created, or create substantial public controversy regarding the Tizer Lakes tract.